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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte AKIFUMI NAKADA, HAJIME TSUCHITANI,
OSAMU FURUSAWA, and TOSHIHIKO ZUZUKI

Appeal 2008-000843
Application 09/832,488
Technology Center 2400

Decided:[1] July 22, 2009

Before JAMES D. THOMAS, HOWARD B. BLANKENSHIP, and
ST. JOHN COURTENAY, III, *Administrative Patent Judges*.

THOMAS, *Administrative Patent Judge.*

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[1] The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, begins to run from the Decided Date shown on this page of the decision. The time period does not run from the Mail Date (paper delivery) or Notification Date (electronic delivery).

DECISION ON APPEAL

STATEMENT OF THE CASE

This is an appeal under 35 U.S.C. § 134(a) from the Examiner's final rejection of claims 7 and 18. Claims 1 through 6, 8 through 17, and 19 through 21 have been canceled. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

Invention

> A communication system is provided that is capable of flexibly dealing with conversations among agents. An agent (201) includes a software part (200) which performs operations that represent the functions of a human ear and a mouth. In generating a conversation, an agent communication language, which is similar to a human conversation, is prepared and sent to a conversation part (200) as a message packet. The conversation part (200) then generates a plurality of conversation threads one for each unit of conversation and converse with a plurality of nodes in parallel and asynchronously. . . . In the preferred embodiment of this invention, the conversation part (200) moves to other places along with a mobile agent.

(Spec. 45, Abstract; and Fig. 1, Fig. 3, and Fig. 14.)

Representative Claim

7. A message processing method for execution by a message processor, the method comprising:

providing, in the message processor of a mobile agent, a plurality of conversation threads and a conversation part object including a conversation thread control part that is capable of controlling the plurality of conversation threads;

halting the plurality of conversation threads;

sending the conversation part object through a network from the message processor to another place in another message processor; and

resuming the plurality of conversation threads at the another message processor.

Prior Art and Examiner's Rejections

Bhanot	US 5,796,934	Aug. 18, 1998 (filed May 31, 1996)
Sudo	US 5,692,192	Nov. 25, 1997

All claims on appeal, 7 and 18, stand rejected under 35 U.S.C. § 102(e). In the first stated rejection, the Examiner relies upon Sudo, and in the second stated rejection, he relies upon Bhanot.

Based upon Appellants' arguments in the Appeal Brief, we consider independent claim 7 as representative of the commonly argued subject matter between independent claims 7 and 18 on appeal. Other than the features noted in our "issues" section of this opinion, no other limitation is argued.

ISSUES

1. Have Appellants shown that the Examiner erred in finding that both Sudo and Bhanot fail to teach "a mobile agent?"

2. Have Appellants shown that the Examiner erred in finding that Sudo and Bhanot teach the commonly recited feature of "a conversation part object including a conversation thread control part that is capable of controlling the plurality of conversation threads?"

FINDINGS OF FACT ("FF")

1. Appellants indicate at Specification page 2, lines 15 through 20, that prior art mobile agents can be characterized broadly in this manner:

> In the prior art mobile agents, however, it can be difficult to realize a flexible, smooth information exchange and coordination among agents because the communications among agents are realized by a conventional method call (subroutine call) or by low level message passing.

In mimicking a conversation between humans, Appellants note in the paragraph bridging Specification pages 2 and 3, a dialogue between a speaking human and listening human. Lines 9 through 12 of page 3 indicate that dialogues between computers involve messages attempting to simulate message processing of a natural language. It is noted that the paragraph bridging Specification pages 25 and 26 utilizes prior art agent communication languages of which various examples are given by name.

With respect to the showing in Figure 3, Appellants state at Specification page 24, lines 24 through 29:

> Each of functional blocks in Fig. 3 has been described. These functional blocks (components), which are logical functional blocks, are not meant to be implemented as an independent integral hardware or software and may be implemented as a complex of hardware devices and software routines, or common hardware devices and software routines.

Appellants admitted at the middle of page 2 of the Reply Brief that the phrase "mobile agent" is very broad.

2. We recognize that Sudo does not utilize the term "mobile agent" per se in his disclosure. On the other hand, Figures 2 and 8 of this reference show plural threads (205) per distributed task, as well as plural threads per node. Figures 3, 6, 7, and 9 illustrate controlling methodologies/dialogues regarding the transfer of threads in an effort to distribute the load by expansion/compression techniques.

3. We also recognize with respect to Bhanot that this reference does not explicitly use the term "mobile agent" per se in his disclosure. On the other hand, both the Abstract and Summary of Invention in Bhanot teach dialogues between clients and servers and between servers utilizing known polling techniques. Bhanot also discloses with respect to the system of Figure 1:

> Programs running on the servers, known as "processes, workers, threads, etc." are used to interact with the clients 101-109 and to manipulate the relational database data in the disk drive array 112. For purposes of consistency, the term "process" is used extensively in this detailed description to refer to programs or sets of code running on a server. One particular kind of process, referred to as a server process, receives requests generated by client applications. This server process interacts with other processes and with the client applications to service the client applications' requests.

(Col. 3, l. 61-col. 4, l. 4.)

With respect to the software layers present in the clients and servers illustrated in Figure 4, column 6, lines 26 through 32, state:

> A server interface layer 408 resides beneath the server process layer 407. This server interface layer 408 performs complimentary functions (e.g., calls to subroutines) with respect to the client interface layer 404. The client interface layer 404 and server interface layer 408 act as a pipeline for conveying information between the client and the server.

PRINCIPLES OF LAW

Anticipation

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d

628, 631 (Fed. Cir. 1987). Analysis of whether a claim is patentable over the prior art under 35 U.S.C. § 102 begins with a determination of the scope of the claim. We determine the scope of the claims in patent applications not solely on the basis of the claim language, but upon giving claims their broadest reasonable construction in light of the specification as it would be interpreted by one of ordinary skill in the art. *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004). The properly interpreted claim must then be compared with the prior art.

ANALYSIS

Representative independent claim 7 on appeal merely recites the message processing method "for" execution in the preamble but does not necessarily positively recite in the body of the claim the actual "execution" of the method. Merely "halting" and "resuming" does not recite that the "execution" of the threads themselves is halted in one place and resumed in another. Correspondingly, the conversation thread control part is recited to be merely "capable of controlling" rather than actually positively stating the control of a plurality of threads. In fact, no control is positively stated to be associated with the conversation thread control part at all. Rather than reciting the mobile agent itself is transported or sent between "places," only the plurality of conversation threads and the conversation part object that includes the conversation thread control part are sent to another "place."

These findings directly bear upon the positions in the Brief and Reply Brief that a mobile agent is sent between places, as well as the view that the conversation thread control part actually "controls" the plurality of threads. Appellants do not indicate that the recited "message processor" is a tangible physical processor. Based upon Appellants' description of disclosed Figure

3 that comprises the bulk of subject matter of representative independent claim 7 on appeal from Specification page 24 in Finding of Fact 2, the actual subject matter is of such scope as to encompass the functionalities/methodologies associated with hardware and software elements.

Additionally, we observe that the prior art mobile agents discussed from the Specification page 2 that we reproduced in FF 1 are so broad as to include simple, conventional method calls, that is, subroutine calls, functionalities, and low level message passing between physical entities in a computer environment. This concept of what a "mobile agent" is to comprise encompasses the dialogues/ methodologies between the physical entities of both references on appeal we noted in FFs 2 and 3. Thus, to the extent Appellants appear to argue with respect to both rejections that both references do not use the term "mobile agents," we recognize in FF 2 and 3 that the two references, Sudo and Bhanot, do not expressly use the term in the respective disclosures.

On the other hand, the concepts actually encompassing the scope of meaning Appellants intend from the prior art appear to regard for the scope of the term, "mobile agent," is encompassed by the dialogues and messaging between computer elements taught in both references. In accordance with all of the findings and representations in FF 1, Appellants intend the term to be broadly interpreted. Therefore, we find that the teachings of Sudo and Bhanot broadly encompass the broad concepts that Appellants intend for the term "mobile agents" to comprise (Issue 1).

From FF 2, we conclude that the artisan would have fairly interpreted that there exists in Sudo software-based functionalities and methodologies

that effectively provide control of a plurality of conversation threads to the extent recited in the claims on appeal. We also conclude that the artisan also would find that Bhanot's polling and dialogues with respect to various computer processes and/or threads, to include the use of subroutine calls as noted in FF 3, support the Examiner's conclusions. Thus, Bhanot also anticipates the subject matter of the claims on appeal (Issue 2).

The Examiner's assertions in the Response to Arguments portion of the Answer that Bhanot's teaching of a mobile computer is analogous to the claimed mobile agent, and that Sudo's nodes are analogous to the claimed term "mobile agent" are misplaced. We are in general agreement with the Appellants' observations at the top of page 3 of the Reply Brief. Nevertheless, our agreement with these views does not lead us to conclude that the subject matter of the claims on appeal is not otherwise anticipated by the teachings of the respective references as outlined above.

Appellants' additional statements made at the top of page 13 of the principal Brief on appeal, as well as those at page 3 of the Reply Brief, are also misplaced, since they appear to be an attempt to set up a strawman/red herring argument relating to obviousness, which has no bearing upon the issues presented in the two rejections before us under 35 U.S.C. § 102.

CONCLUSIONS OF LAW

Appellants have not shown that the Examiner erred in finding that Sudo and Bhanot each teach concepts related to Appellants' broad definition of the term "mobile agent."

Appellants also have not shown that the Examiner erred in finding that Sudo and Bhanot each teach the functional correspondence of the

conversation thread control part that actually controls a plurality of conversation threads.

DECISION

The Examiner's rejection under 35 U.S.C. § 102(e) of claims 7 and 18 as being anticipated by Sudo is affirmed. Additionally, the Examiner's separate rejection of these claims under 35 U.S.C. § 102(e) as being anticipated by Bhanot is also affirmed. All claims on appeal are unpatentable.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(v).

AFFIRMED

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